

REMARKS

The rejections under 35 U.S.C. § 103(a) of:

Claims 1 and 3 as unpatentable over DE 3432082 (Barthell et al) in view of U.S. 4,219,389 (Biola et al), and

Claim 2 as unpatentable over Barthell et al in view of Biola et al, and further in view of U.S. 4,340,706 (Obayashi et al),

are respectfully traversed.

As recited in above-amended Claim 1, the present invention is a process for preparing an aqueous alkali metal acrylate solution by distillatively removing acrylic acid from an acrylic acid-containing mixture and generating an aqueous alkali metal acrylate solution from the distillatively removed acrylic acid and an aqueous solution of a basic alkali metal salt, which comprises a) feeding the acrylic acid-containing mixture to a distillation apparatus, b) carrying out the removal of the acrylic acid from the acrylic acid-containing mixture in the distillation apparatus above the feed point and c) generating the aqueous alkali metal acrylate solution in such a manner that the acrylic acid removed in the distillation apparatus is **taken up immediately from the gas phase into an aqueous solution** of at least one alkali metal compound selected from the group consisting of an alkali metal hydroxide, an alkali metal carbonate and an alkali metal hydrogencarbonate (emphasis added).

Thus, in the presently-claimed invention, the acrylic acid is not transferred into any other condensed phase prior to transferring it into the aqueous solution of the alkali metal compound. In the prior art, on the other hand, as described in the specification beginning at page 2, line 29, acrylic acid is not so transferred but may, for example, be absorbed in a suitable absorbent or fractionally condensed. A storage polymerization inhibitor is customarily added for storage purposes. A polymerizable aqueous alkali metal acrylate solution is generated from the polymerization-inhibited acrylic acid and a basic alkali metal

salt solution and optional components. A polymerization initiator is then added for polymer initiation. This procedure is disadvantageous for various reasons, as described in the specification at page 3, lines 16-30, as the polymerization inhibitor and polymerization initiator are antagonists, and Michael addition products of the acrylic acid may form. An advantage of the present invention, when the aqueous alkali metal acrylate solution is to be reused immediately, is that a polymerization inhibitor can be dispensed with, as described in the specification beginning at page 7, line 28.

The applied prior art neither discloses nor suggests the presently-claimed invention. Barthell et al discloses mixing acrylic acid with an aqueous slurry of an alkaline earth metal carbonate, adding an alkali metal bicarbonate, and separating the alkaline earth metal carbonate. But the acrylic acid in Barthell et al is already in the liquid phase prior to adding it to the alkaline slurry therein. Neither Biola et al alone, nor combined with Obayashi et al, remedy this basic deficiency in Barthell et al. None of the prior art discloses or suggests transferring gaseous acrylic acid into an aqueous solution of an alkali metal compound.

For all the above reasons, it is respectfully requested that the rejections over prior art be withdrawn.

The rejection of Claims 1-3 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Indeed, the rejection is now moot in view of the above-discussed amendment. Accordingly, it is respectfully requested the rejection be withdrawn.

The rejection of Claim 2 under 35 U.S.C. § 101 is now moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that the rejection be withdrawn.

With regard to the requirement of a new oath or declaration, it is submitted that the Application Data Sheet submitted with the filing of the application remedies any deficiencies, because the original declaration contains all the statutorily-required provisions. Nevertheless,

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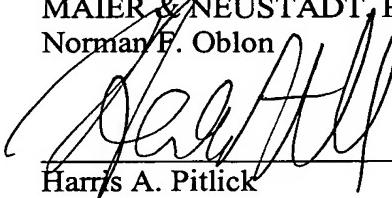
submitted herewith is a new Declaration. Accordingly, it is respectfully requested that the requirement be withdrawn.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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